

# Endemic families of Madagascar. I. A synoptic revision of *Melanophylla* Baker (Melanophyllaceae)

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## ABSTRACT

In preparation for an assessment of the conservation status of all taxa in the vascular plant families endemic to Madagascar and the Comoro Islands, to be compiled as a Red Data Book under the auspices of the IUCN, a synoptic revision of *Melanophylla* Baker (Melanophyllaceae) is presented. Recent molecular sequence data support the exclusion of *Melanophylla* from Cornaceae (under which it was originally treated for the Flore de Madagascar), and suggest instead placement at the base of Araliales sister to *Aralidium* Miq. Critical comparison of all available herbarium material leads us to recognize six species, one of which, *M. modestei*, is described as new; four formerly recognized species are placed in synonymy. A key to the species is provided in English and French.

## KEY WORDS

Madagascar,  
endemic families,  
*Melanophylla*,  
Melanophyllaceae.

## RÉSUMÉ

Une révision synoptique du genre *Melanophylla* Baker (Melanophyllaceae) est présentée, en vue d'évaluer l'importance, pour la conservation, des taxons appartenant aux familles de plantes vasculaires endémiques de Madagascar et des Comores, afin d'élaborer un Livre Rouge sous l'égide de l'UICN. Des données moléculaires récentes justifient l'exclusion de *Melanophylla* des Cornaceae, famille dans laquelle il a été placé dans la Flore de Madagascar, et indiquent plutôt une position à la base des Araliales, à côté du genre *Aralidium* Miq. L'étude de l'ensemble des spécimens disponibles nous permet de reconnaître six espèces, dont une nouvelle (*M. modestei*) ; quatre espèces sont mises en synonymie. Une clé de détermination est fournie en anglais et en français.

## MOTS CLÉS

Madagascar,  
familles endémiques,  
*Melanophylla*,  
Melanophyllaceae.

## INTRODUCTION

The flora of Madagascar is characterized by an extremely high level of endemism, perhaps approaching 80% at the species level, and by a remarkable array of habitat types, ranging from perhumid tropical forests to semiarid deserts (KOECHLIN et al. 1974; LOWRY et al. 1997). Among the endemic taxa, a subset can be distinguished that exceeds all others in conservation importance: those that belong to the nine families endemic to Madagascar and the adjacent Comoro Islands. These groups are in a very real sense the «most endemic of the endemic», representing evolutionary lines that in some cases had wider distributions in the past, but through extinction now exist nowhere else.

Under the auspices of IUCN – The World Conservation Union, the Missouri Botanical Garden in collaboration with the Association Nationale pour la Gestion des Aires Protégées (ANGAP) in Madagascar has initiated a project to compile a Red Data Book on the Malagasy endemic vascular plant families, whose goal is to assess the conservation status of all species in the families Asteropeiaceae, Didiereaceae, Didymelaceae, Diegodendraceae, Kaliphoraceae, Melanophyllaceae, Physenaceae, Sarcolaenaceae, and Sphaerosepalaceae. The project will utilize Geographic Information System (GIS) technology to analyze distributions in relation to bioclimate, geology, remaining vegetation, and threat, supplemented by additional field population biology studies. The first step in such a project is a

critical review of the existing taxonomy in each family, particularly in light of new collections.

KERAUDREN (1958b) treated the endemic *Melanophylla* Baker (Melanophyllaceae) along with a second endemic genus, *Kaliphora* Hook. f., as members of Cornaceae for the Flore de Madagascar et des Comores. Subsequently, AIRY SHAW (1972) superfluously described *M. pachypoda* based on an isotype of *M. madagascariensis* (later correctly placing it into synonymy [AIRY SHAW 1973]), as well as validating with a Latin diagnosis the family name Melanophyllaceae first proposed by TAKHTAJAN (1970). AIRY SHAW suggested that *Melanophylla* was more closely related to Escalloniaceae and Araliaceae, respectively, on the basis of leaf toothing and the sheathing petiole base, rather than to Cornaceae sensu stricto. EYDE (1988) argued for exclusion of *Melanophylla* from the core of Cornaceae, along with several other anomalous genera including *Kaliphora*. Recent molecular sequence data have confirmed the exclusion of various genera from Cornaceae s.s. (XIANG et al. 1993), and have provided inference of their possible relationships. Parsimony analysis of chloroplast *matK* and *rbcL* sequences place *Melanophylla* sister to *Aralidium* Miq. (Aralidiaceae) at the base of Araliales along with *Griselinia* J.R. Forst. & G. Forst. (Griselinaceae) and *Toricellia* DC. (Toricelliaceae) (PLUNKETT et al. 1996, 1997). Insofar as *Aralidium* is restricted to West Malesia, i.e., west of Wallace's Line, the common ancestor of *Melanophylla* and *Aralidium* may have been

distributed across Madagascar/Greater India during the late Cretaceous, with the ancestor of *Aralidium* surviving «Noah's Ark» rafting on Greater India after its separation from Madagascar ca. 88 million years ago (STOREY et al. 1995), followed by dispersal into W. Malesia and extinction in India (SCHATZ 1996).

Melanophyllaceae differ from Cornaceae by their alternate versus opposite leaves (rarely alternate in Cornaceae) with a distinctly sheathing petiole base; glandular capitate hairs versus biramous hairs; axillary (but often appearing pseudo-terminal) panicleate inflorescences versus terminal umbellate, corymbiform, capitate, or rarely paniculate inflorescences; 5-merous versus 4-merous flowers with imbricate versus valvate petals; free versus fused styles; and a reduced to absent versus distinct nectary disc. In addition, Melanophyllaceae have 2-3 locules, only one of which is fertile with a single pendulous ovule versus 2 locules, each with a single ovule in Cornaceae. Molecular sequence data also confirm that *Kaliphora madagascariensis* Hook. f.

is best treated as representing a monotypic endemic family close to Montiniaceae at the base of Solanales (R. OLMSTEAD pers. comm. to GES).

Based upon a detailed comparison of morphological features using all the material of *Melanophylla* at K, MO, P, TAN, and TEF, the following revised taxonomy is proposed. Six species are recognized, of which one (*M. modestei*) is newly described; additional material accrued since the Flore de Madagascar treatment by KERAUDREN (1958b) leads us to place four formerly recognized species into synonymy. For the «Material examined» cited below under each species, abbreviations are as follows: PN = Parc National; RNI = Réserve Naturelle Intégrale; RS = Réserve Spéciale; STF = Station Forestière. Full exsiccatae with complete localities and latitude/longitude coordinates have been compiled in the context of the Madagascar Conspectus Project (SCHATZ et al. 1996), and are available on the World Wide Web through W3 TROPICOS (<http://mobot.mobot.org/Pick/Search/pick.html>).

## TAXONOMIC TREATMENT

### Key to the species of *Melanophylla*

1. Inflorescence main axis 36-60 cm long; leaf blade 27-56 × 8-22 cm ..... 5. *M. modestei*
- 1'. Inflorescence main axis 3.5-29 cm long; leaf blade 3.5-28 × 1.5-15 cm ..... 2
2. Leaf blade thick coriaceous, 15-28 cm long ..... 3
- 2'. Leaf blade thin chartaceous to membranous, 3.5-25 cm long, or if sub-coriaceous, then never exceeding 10(-12) cm long ..... 4
3. Leaf margins slightly revolute; flower buds 2.5 mm long, petals 3.5 mm ..... 4. *M. madagascariensis*
- 3'. Leaf margins strongly revolute; flower buds 4.5-5 mm long, petals 5.5 mm ..... 6. *M. perrieri*
4. Inflorescence bifid, each axis a raceme; rarely one or both of the axes once-branched near the base, petals yellow; fruit 14-16 mm long ..... 3. *M. crenata*
- 4'. Inflorescence a well-branched pyramidal panicle, petals white; fruit 6-11 mm long ..... 5
5. Leaf blade sub-coriaceous, 3.5-10(-12) cm long; inflorescence main axis 4-12.5 cm long; twigs slender, petiole base 1-3 mm broad; plants occurring from (900-)1,000-1,800 m altitude ..... 1. *M. alnifolia*
- 5'. Leaf blade thin chartaceous, 8.5-25 cm long; inflorescence main axis 12-30 cm long; twigs stout, petiole base (2-)6-11 mm broad; plants occurring from 250-1,000 m altitude ..... 2. *M. aucubifolia*

In order to facilitate identification of *Melanophylla* material in Madagascar, the key is also given in French.

### Clé des espèces de *Melanophylla*

1. Axe principal de l'inflorescence long de 36-60 cm ; limbe foliaire 27-56 × 8-22 cm ..... 5. *M. modestei*
- 1'. Axe principal de l'inflorescence long de 3,5-29 cm ; limbe foliaire 3,5-28 × 1,5-15 cm ..... 2

2. Limbe foliaire épais, coriacé, long de 15-28 cm ..... 3
- 2'. Limbe foliaire mince, cartacé à membraneux, long de 3,5-25 cm, ou s'il est subcoriacé ne dépassant pas 10(-12) cm ..... 4
3. Marge de la feuille légèrement révolurée; boutons floraux longs de 2,5 mm, pétales de 3,5 mm ..... 4. *M. madagascariensis*
- 3'. Marge de la feuille fortement révolurée; boutons floraux longs de 4,5-5 mm, pétales 5,5 mm ..... 6. *M. perrieri*
4. Inflorescence bifide, chaque axe en racème, rarement un ou les deux axes uni-branchés près de la base, pétales jaunes; fruit long de 14-16 mm ..... 3. *M. crenata*
- 4'. Inflorescence en panicule pyramidale rameuse, pétales blancs; fruit long de 6-11 mm ..... 5
5. Limbe foliaire sub-coriacé, long de 3,5-10(-12) cm; axe principal de l'inflorescence long de 4-12,5 cm; rameaux minces, base du pétiole large de 1-3 mm; plantes s'élevant de (900-)1000 à 1800 m d'altitude .... 1. *M. alnifolia*
- 5'. Limbe foliaire mince, cartacé, long de 8,5-25 cm; axe principal de l'inflorescence long de 12-30 cm; rameaux épais, base du pétiole large de (2-)6-11 mm; plantes s'élevant de 250 à 1000 m d'altitude. .... 2. *M. aucubifolia*

### 1. *Melanophylla alnifolia* Baker

J. Linn. Soc., Bot. 21: 352 (1886).—Type: *Baron 3240*, Madagascar, without precise locality (holo-, K!; iso-, P (2)!).

*Melanophylla capuronii* Keraudren, «*Capuronii*», Bull. Soc. Bot. France 55: 253 (1958).—Type: *Service Forestier (Capuron) 8806*, Prov. Antsiranana or Toamasina, Massif du Beanjada, N de la Presqu'île Masoala, 1000 m (holo-, P!; iso-, K!, MO!, P (2)!, TEF!); *syn. nov.*

*Melanophylla alnifolia* is a small to medium tree 5-15 m tall, or rarely a large tree over 20 m tall, occurring at mid to high elevation (1,000-1,800 m) from the massifs of Manongarivo RS and Marojejy RNI in the north to Ranomafana PN in the south. It can be recognized by its sub-coriaceous leaves with usually distinctly revolute margins, which are crenate-serrate mostly in the upper 1/4-1/3, and with an often sub-truncate apex. The twigs are slender, and consequently the sheathing petiole base is rather narrow (1.2-3 mm broad). The inflorescence of *M. alnifolia* is a narrowly pyramidal, relatively open panicle bearing flowers with white petals.—Fig. 1A.

*Melanophylla capuronii* was distinguished from *M. alnifolia* on the basis of leaves that had dried green as opposed to black (almost certainly a function of rapid drying), and thick, recurved styles, which are probably a reflection of the developmental stage (late female phase of protandrous flowers/early to mature fruit with styles still attached). Otherwise, all other aspects of the flowers, fruit and vegetative parts of *Service*

*Forestier (Capuron) 8806* conform to *M. alnifolia*, as well as its occurrence at 1,000 m altitude on Mt. Beanjada to the north of the Masoala Peninsula.

VERNACULAR NAMES.—Briaty, Hazomborondreo, Marefolena, Sirambengy.

MATERIAL EXAMINED.—*Baron 3097, 3240*, without precise locality; *Cours 879*, Moramanga, 3750, Anjanaharibe-Sud RS; *Guillaumet 4171*, Marojejy RNI; *Herb. St. Agric. Alaotra 94*, s.loc.; *Humbert 24625*, Anjanaharibe-Sud RS, 31503, 31628, Marojejy RNI; *Miller 4598*, Marojejy RNI; *Rakoto 340*, Ranomafana PN; *Randrianasolo 90*, Marojejy RNI; *Ravelonarivo 95*, Anjanaharibe-Sud RS; *Schatz 2895*, Masoala PN, 3552, Ambohitantely RS; *Service Forestier 937*, Anjanaharibe-Sud RS, 7880, 7995, Manankazo-Ankazobe SF, 8806, Beanjada, 11453, Manongarivo RS, 20164, Ambohitantely RS, 21923, 21924, Sandrangato.

### 2. *Melanophylla aucubifolia* Baker

J. Linn. Soc., Bot. 21: 352 (1886), «*aucubaefolia*».—Type: *L. Kitching s.n.*, Madagascar, without precise locality (holo-, K!).

*Melanophylla humblotii* Drake, «*Humbloti*», in Grandidier, Hist. Phys. Madagascar, pl. 400 (1896).—Type: Plate 400 (undoubtedly based upon *Humblot 517*). [In the Flore de Madagascar treatment (KERAUDREN 1958b), BAILLON was incorrectly cited as the author of the name, and 1894 as the publication date for Plate 400]; *syn. nov.*

*Melanophylla humbertiana* Keraudren, Bull. Soc. Bot. France 55: 253 (1958).—Type: *Humbert 24531*, Prov. Antsiranana, Massif de l'Anjanaharibe, 900m (holo-, P!; iso-, P (2)!) [*Cours 3659* (K!, P!)] and *Herb.*



Fig. 1.—Flowering specimens of *Melanophylla* species: A, *M. alnitolia* (Schatz 3552); B, *M. modestei* (Lowry et al. 4150).

*Inst. Sci. Madagascar 3659* (TAN (2)!, MO!) are the same gathering as *Humbert 24531*, and thus are additional isotypes]; *syn. nov.*

*Melanophylla aucubifolia* is a small tree 5–8 m tall occurring from 250–1,000 m altitude from the Marojejy RNI to Andringitra RNI. It can be recognized by its thin textured leaves when dried, which usually have dentate toothing in the upper 1/2 or even 3/4, although the margins may occasionally be nearly entire; leaf shape varies from oblong to broadly elliptic. The twigs are usually stout and light-colored, with the sheathing petiole base consequently broad ([2-] 6–11 mm) and contrastingly black when dried, and the petiole often quite long (to 12.5 cm). The inflorescence of *M. aucubifolia* is a long, open, broadly pyramidal panicle bearing flowers with white petals.

*Melanophylla humbertiana* was distinguished from *M. aucubifolia* by KERAUDREN (1958a) on the basis of rounder teeth and more flowers per inflorescence, whereas *M. humblotii* was distinguished primarily by its nearly entire leaf margins. The presence and form of teeth is highly variable throughout the genus, especially within *M. aucubifolia*, and appear to vary with local conditions, as also does the number of flowers per inflorescence.

VERNACULAR NAMES.—Hazomalany, Singaramantingoro, Tsiboratiana.

MATERIAL EXAMINED.—*Andriannarisata 253*, Betampona RNI; *Cours 3659*, Anjanaharibe-Sud RS, 4781, 4802, 4912, Didy; *D'Alleizette 773*, Mandraka STF; *Herb. Inst. Sci. Madagascar 3659*, Anjanaharibe-Sud RS; *Herb. St. Agric. Alaotra 3659* (= *Herb. Inst. Sci. Madag. 3659*), Anjanaharibe-Sud RS; *Humbert 24531*, Anjanaharibe-Sud RS; *Humblot 517*, without precise locality; *Kitching s.n.*, without precise locality; *Lewis 895*, Andringitra RNI; *Lowry 4282*, Mantadia PN; *Miller 4242*, Marojejy RNI; *Perrier de la Bâthie 18358*, Ambatovola; *Rakotomalaza 732*, Marojejy RNI; *Réserves Naturelles 4533*, Betampona RNI; *Service Forestier 1602*, Analainazaoatra-Périnet RS, 8984, Amboditavolo, 11538, Analamazaotra-Périnet RS, 24029, Saharanga, 24380, Marozevo, 33854, Mantady PN.

### 3. *Melanophylla crenata* Baker

Hook. Icon. Pl., t. 2499 (1896).—Lectotype (here

designated): *Forsyth-Major 296*, Prov. Fianarantsoa, Ambohimombo (K!).

*Melanophylla longipetala* Keraudren, Bull. Soc. Bot. France 55: 251 (1958).—Type: *Service Forestier (Capuron) 6699bis*, Prov. Toamasina, Forêt de Sandrangato, S de Moramanga (holo-, P!; iso-, MO!, P (2)!, TEF (2)!); *syn. nov.*

*Melanophylla crenata* is a shrub to small tree 3–8 m tall occurring from 300–1,380 m and ranging from just north of the Zahamena RNI to the region of Andohahela PN. It is easily recognized by its bifid inflorescence, each axis forming a raceme of widely spaced flowers, with occasionally one or rarely both of the axes once-branched near the base, bearing flowers with yellow petals. The twigs are slender, with the current year's growth drying black and the previous year's wood nearly white, and the sheathing petiole base is correspondingly narrow (0.5–3 mm broad).

*Melanophylla longipetala* was based on a collection with petals only 1–2 mm longer than other material; it nevertheless has the characteristic inflorescence of *M. crenata*, which is unique within the genus. *Melanophylla crenata* appears to be the only species in the genus with yellow petals, and it is further distinguished by having fruit that are considerably larger than the other two species with which it may be sympatric (*M. alnifolia* and *M. aucubifolia*).

BAKER (1896) cited three syntypes when he described *M. crenata* (*Forsyth-Major 118, 296* and *382*), from which we have selected number *296* as the lectotype because it exhibits a fully developed, characteristic inflorescence with flowers at anthesis.

VERNACULAR NAMES.—Hazoporetaka Kivoso, Marefilena, Kibontongatra, Sirambengy, Tafara Vavaporetaka.

MATERIAL EXAMINED.—*Cours 2819* (= *Herb. Inst. Sci. Madag. 2819*), Amboditaonana, 4342 (= *Herb. Inst. Sci. Madag. 4342*), Andrebevava, 4664, 4715, 4717, Didy; *Forsyth-Major 181, 296, 352*, Ambohimombo; *Humbert 6621*, Marosohihy; *Kotozafy 352*, Ranomafana PN; *Lewis 847, 860*, Andringitra RNI; *Malcomber 1633*, Ranomafana PN; *Nicoll 127*, Ranomafana PN; *Noyes 988*, Mantadia PN; *Perrier de la Bâthie 18057*, Ambinaniango, 18357, Ambatovola; *Rakoto 284, 433*, Ranomafana

PN; *Réserves Naturelles 6100*, Zahamena RNI; *Service Forestier 1258*, Ampamaherana STF, 1494, Pic d'Ivohibe RS, 2042, Ampamaherana STF, 5852, 6508, Andrambovato STF, 6699bis, Sandrangato, 22356, Andohahela PN, 24163, Andriandavibe, 25410, 2550a, Ambodigavo, 28401, Antanandava, 34312, Beforana; *Turk 256*, 571, Ranomafana PN.

#### 4. *Melanophylla madagascariensis* Keraudren

Bull. Soc. Bot. France 55: 251 (1958).—Lectotype (here designated): *Humboldt 437*, Madagascar, without precise locality (P!; iso-, K!, P!).  
*Melanophylla pachypoda* Airy Shaw, Kew Bull. 26: 491 (1972), nom. superfl.—Type: *Humboldt 437* (holo-, K!; iso-, P (2)!).

*Melanophylla madagascariensis* is known only from the type collection from the region of Antsianaka (probably to the east of Didy) and two collections from Betampona RNI, none of which note the habit or size of the plant. This species shares thick coriaceous leaves when dried with *M. perrieri*, from which it can be distinguished by its slightly revolute leaf margins, compact inflorescence, and smaller flowers borne in a dense, contracted pyramidal panicle; the color of the petals is unknown.

VERNACULAR NAME.—Bararaty.

MATERIAL EXAMINED.—*Humboldt 437*, without precise locality; *Réserves Naturelles 5904*, 8312 (= *Service Forestier 17300*), Betampona RNI.

#### 5. *Melanophylla modestei* G.E. Schatz, Lowry & A.-E. Wolf, sp. nov.

*Differt a speciebus aliis Melanophyllis foliis longioribus, axe principali inflorescentiae longiore, et fructibus majoribus.*

TYPE.—*Schatz & Modeste 3131*, Madagascar, Prov. Toamasina, hills just E of Ambanizana to the N of the Androka River, 15°37'30"S, 49°58'30"E, 25–250 m, 10 Jan. 1991, fr. (holo-, MO!; iso-, K!, P!, TAN!).

Unbranched to sparsely branched small tree to 6 m tall, stems 1–2 cm diam. Leaves clustered toward the apex of the stems, the petiole 6.8–15 cm long, deeply channeled, winged from the base to 7–11 mm from the apex, the strongly

sheathing amplexicaul base 5–11 mm broad, the blade oblanceolate to broadly obovate, broader above the middle, 27–56 × 8–22 cm, the base acute to cuneate and slightly asymmetrical, the margin subentire to acute dentate-serrate in the upper third, the apex obtuse to abruptly acuminate, the venation craspedodromous, with 10–13 pairs of straight secondary veins, these often branching as low as midway to the margin, often with 1–several additional branches, each basal to the main secondary and also terminating at the margin, rarely semicraspedodromous with the ultimate side branches from a secondary vein joining just before the margin, the midrib channeled above, conspicuously raised below, the blade somewhat succulent when fresh with the texture of cabbage, drying thin chartaceous, black. Inflorescences axillary, appearing pseudo-terminal, erect, a many-branched, open panicle, the main axis 36–49 cm long, often bearing a narrowly lanceolate bract toward the base, 40 × 7 mm, with many smaller bracts along the length of main axis and lateral branches, the first branch 1 cm from the base, 22 cm long, the next branch 4.5 cm from base, 22 cm long, the third branch at 12.5 cm, 16 cm long, and then 7–10 additional branches, each becoming progressively shorter; flowers borne in the axil of an ovate, ciliate bract, 3–4 × 1–3 mm, pedicel 5 mm long, light purple, bearing at its apex a bilobed, light purple involucre comprised of two fused bracteoles, 1.5 mm across, the margin ciliate; fused calyx 2 mm across, 1.5 mm high, light purple, the margin irregularly truncate, ciliate; petals 5, narrowly elliptic, 7–8 × 2–3 mm, dark pink to purple outside, pale pink inside, imbricate in ellipsoid bud, reflexed at anthesis; stamens 5, the filaments slender, 3–4 mm long, white, the anthers basifixed, ovate, 4–4.5 × 2 mm, the base sagittate, the apex acute, yellow; ovary inferior, 3-locular, narrowly ellipsoid to obovoid, 2.5 mm long, 2 mm diam., finely pubescent, styles 3, linear, 4 × 0.4 mm; ovule 1, apically pendulous in one locule, the other two locules sterile. Fruit a fleshy drupe, ovoid to ellipsoid, 14–18 mm long, 7–11 mm in diam., the endocarp with a hard, stony ridge above the fertile locule, less lignified around the two sterile locules; mature seeds unknown.—Figs. 1B, 2.

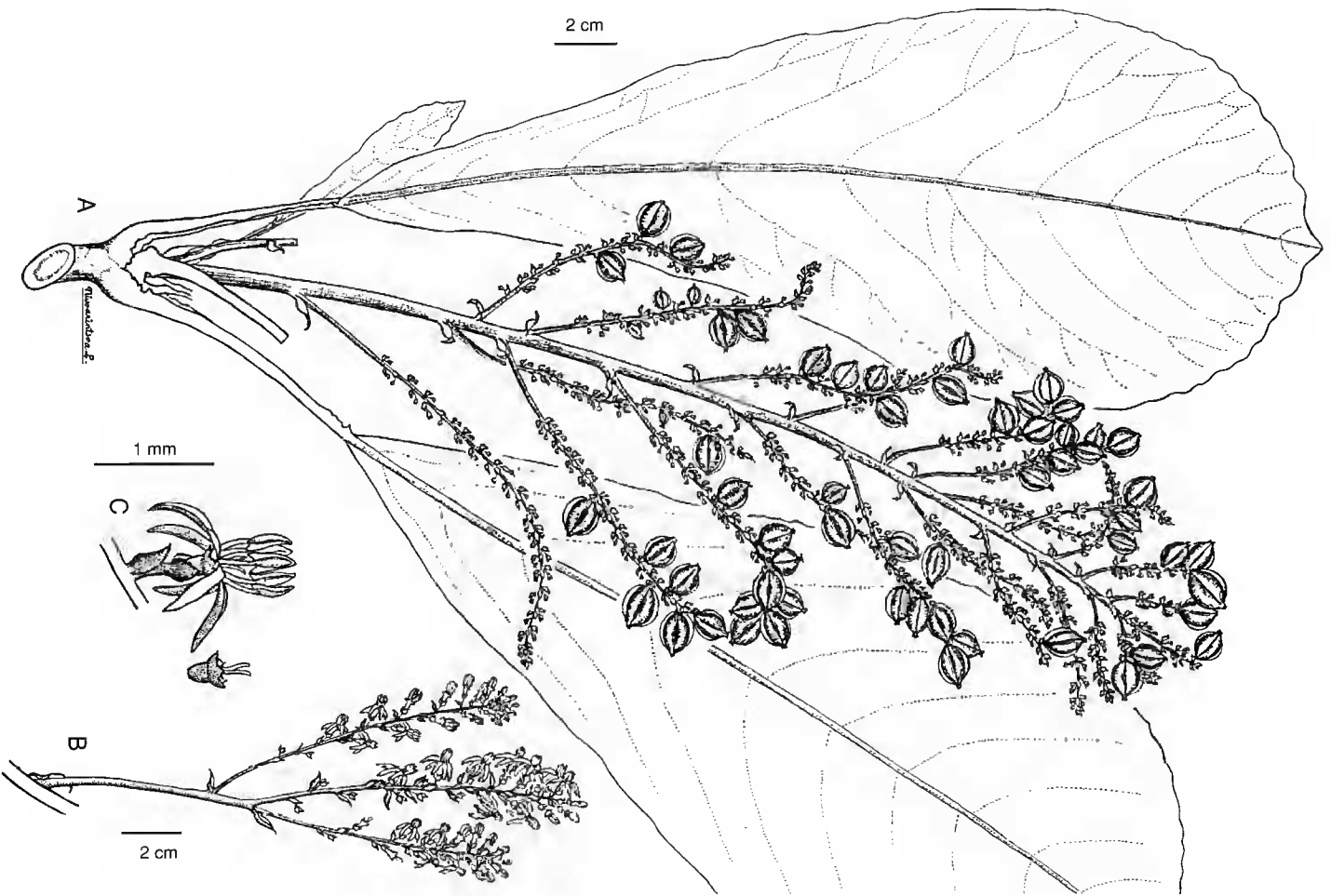


Fig. 2.—*Melanophylla modeste*: A, infructescence and leaf; B, lateral branch of infructescence; C, flower and gynoecium with petals removed. (A, Scharz & Modeste 3131; B, C, Lowry et al. 4149).



PARATYPES.—From the type locality: *Aridy & Lowry* 280, 1 Mar. 1998, st. (MO!, TAN!); *Lowry, Rakotozafy & Nicoll* 4149, 16 Oct. 1986, fl., fr. (K!, MO!, P!, TAN!); *Lowry, Rakotozafy & Nicoll* 4150, ibid. (MO!, P!, TAN!); *Rakotozafy* 2079, Oct. 1986, fl. (TAN!); *Schatz, van der Werff, Gray & Razafimandimbison* 3319, 25 Oct. 1992, fl. (K!, MO!, P!).

*Melanophylla modestei* is known only from the type locality in lowland humid evergreen forest on slopes just east of Ambanizana on the Bay of Antongil side of the Masoala Peninsula, at the edge of the newly established Masoala PN. It is easily distinguished from all other *Melanophylla* species by its extremely large leaves, which are succulent and cabbage-like when fresh and thin chartaceous when dried, and equally large, open, paniculate inflorescences bearing flowers with pink petals. The fruits are also the largest recorded in the genus. A photograph of *M. modestei* can be seen on the Madagascar Conspetus Web site at (<http://www.mobot.org/MOBOT/Madagascar/melano.html>).

The species epithet honors our good friend and colleague Georges MODESTE, with whom we have spent many wonderful days exploring the magnificent rain forests around the Bay of Antongil, and for whom the new Parc National Masoala is a great source of pride. *Melanophylla modestei* grows a mere stone's throw from his back door.

## 6. *Melanophylla perrieri* Keraudren

Bull. Soc. Bot. France 55: 251 (1958), «Perrieri».—Type: *Perrier de la Bâthie* 8709, Prov. Toamasina, haute Sakaleona, 450 m (holo-, P!; iso-, P!).

*Melanophylla perrieri* is a small, sparsely branched tree 3–6 m tall, known from the type collection in the upper basin of the Sakaleona River to the east of Ambositra, and a second specimen from Mananara Nord. It shares thick, coriaceous leaves when dried with *M. madagascariensis*, from which it can be distinguished by its strongly revolute leaf margins, more elongate inflorescence and larger flowers with pink petals.

VERNACULAR NAME.—Baritra.

MATERIAL EXAMINED.—*Perrier de la Bâthie* 8709, Ambalafary, haute Sakaleona; *Service Forestier* 26108, Ambalavala, Mananara Nord.

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